

REMARKS

Favorable reconsideration of this Application, the Office Action of July 20, 2005, and the Advisory Action of October 6, 2005 are respectfully requested in view of the following remarks.

Filed concurrently herewith is a one-month extension of time request and requisite fee to extend the deadline for response from October 20, 2005 to November 20, 2005

Original claims 1 to 79 remain under consideration in this application.

The Advisory action of October 6, 2005 merely stated that the rejections were being maintained, but like the Final Rejection did not address why the rejections were being maintained or why applicant's arguments were not pertinent. Therefore, on October 26, 2005 a telephonic interview between Examiner Chu and attorney George W. Rauchfuss, Jr., Esq. (Reg. No. 24,459) was held to determine why the rejection was being maintained. Applicant thanks Examiner Chu for granting that interview and clarifying the PTO position. The following summarizes the substance of that interview. Examiner Chu indicated that if Applicant presented the arguments made previously and those made in the interview the rejection would be reconsidered.

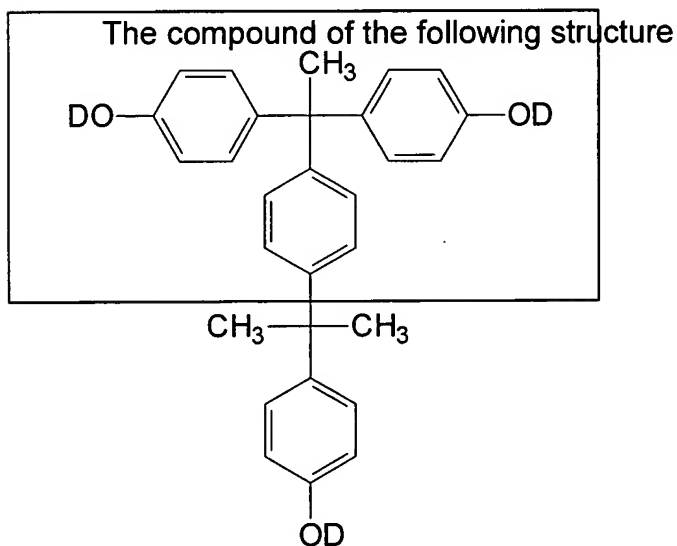
It was first re-iterated on behalf of the Applicant that since claims 1 to 11 and 60 to 79 have been allowed because of the novelty and unobviousness of the polybenzoxazole precursor polymers of Structure (I) to which these claims 1-11 are directed and which form a part of the compositions recited in claims 60-79—as stated in paragraph 5 of the Office Action, any resin composition claims of resin composition claims 12-37, any process claims of process claims 38-48, and any substrate claims of substrate claims 49-59, that require the presence of the novel and unobvious polybenzoxazole precursor polymer of structure (1) are also to be considered novel, unobvious and therefore patentable. In part,

due to the readily apparent correctness of this previous sentence, Examiner Chu has kindly indicated that claims 21, 24, 27, 28, 34, 35, 41, 42, 45-48, 52, 53 and 56-59 are drawn to allowable subject matter. **However, such listing of allowable claims is incomplete. Claims 23, 26, 29, 30, 37, 42, 43 and 54 all also require the presence of the polybenzoxazole precursor polymer of Structure (I) of allowed claim 1 and therefore these claims should also have been indicated to be drawn to allowable subject matter.** Claim 23 requires that the at least one polybenzoxazole precursor polymer be a polymer of Structure (I), i.e., a polymer of allowed claim 1 and is therefore drawn to allowable subject matter. Claims 26, 29, 30, 37, 43 and 54 are dependent directly or indirectly upon this claim 23. Thus, all these claims (Claims 26, 29, 30, 37, 43 and 54) are also drawn to allowable subject matter. Claim 28 is one of the claims indicated by Examiner Chu to be allowable. Claim 42 is dependent of said allowable claim 28 and is therefore also drawn to allowable subject matter. Thus, insofar as the prior art rejections of paragraphs 3 and 4 of the July 20, 2005 Office Action have been applied to these claims 23, 26, 29, 30, 37, 42, 43 and 54, those rejections are erroneous and Applicant respectfully requests the PTO to reconsider and withdraw those rejections insofar as they are applied to these claims 23, 26, 29, 30, 37, 42, 43 and 54. This point was made in the previous response filed in May 2005 and the PTO apparently overlooked or paid no attention to these facts and made no comments with respect thereto in the July 20th Office Action. Therefore, the PTO is respectfully requested to consider the fact that claims 23, 26, 29, 30, 37, 43 and 54 all require the presence of the novel and unobvious polymer of structure (I) of allowed claim 1 and are also drawn to allowable subject matter and, in view of that, indicate that claims 23, 26, 29, 30, 37, 43 and 54 are also allowable.

The rejection of claims 12-20, 22, 23, 25, 26, 29-33, 38-40, 43, 44, 49-51, 54 and 55 under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,376,151 B1 to Takahashi et al. or US Patent No. 5,376,499 to Hammerschmidt et al. in view of US Patent 6,071,151 B1 to Hirano et al. is respectfully traversed. As stated above, this rejection is clearly erroneous as applied to claims 23, 26, 29, 30, 43 and 54 since these claims require

the presence of the novel polymer of Structure (I) of allowed claim 1.

In the telephonic interview of October 26, 2006, Examiner Chu explained the USPTO's position for maintaining the rejection is based on the following construction of the Takahashi et al. patent disclosure. The USPTO rejection of the claims under this rejection is based on the contention that Takahashi et al. discloses end-capped polymers of Structure (III) in compositions with diazoquinone photoactive compounds. Examiner Chu stated that the USPTO considered the photoactive compound disclosed at column 7, lines 1-15 of the Takahashi et al. patent as meeting the formula V photoactive compounds in Applicant's claim 12.



Is the compound that the PTO relies upon to maintain the rejection according to Examiner Chu.

Examiner Chu stated that the PTO position was that the PTO considered the two methyl groups on the central carbon at column 7, line 10 in the Takahashi et al. compound to be Applicant's R^4 and R^6 in Formula (V) and that the PTO position was that the biphenyl ethylene substituted phenylene moiety at column 7, lines 2 to 9 of the Takahasi et al.

compound met Applicant's R⁵ in Formula (V). For the convenience of the USPTO that moiety is outlined in the box in the above structure. On behalf of Applicants, Mr. Rauchfuss pointed out that this contention was incorrect with respect to R⁵. Mr. Rauchfuss pointed out that this was incorrect since the radical that the PTO considered to be R⁵ in the Takahashi et al. compound could at most be considered an alkyl substituted **phenylene** since it was the phenyl moiety connected to the central carbon, and Applicant's definition of R⁵ was not to an alkyl-substituted phenylene, but was to a phenyl substituted alkyl moiety, (a moiety in which it is the alkyl group connected to the central carbon atom).

That is, for the compound at column 7, lines 1-15 of the Takahashi et al. patent to be the same as applicant's Formula (V) it would be necessary for one of R⁴, R⁵ or R⁶ of said Formula V to be phenylene or alkyl substituted phenylene. However R⁵ is not defined to include phenylene or alkyl substituted phenylene. Rather R⁴, R⁵ or R⁶ can only be alkyl, phenyl substituted alkyl, or halide substituted alkyl. Thus, it is readily apparent that the photoactive compounds in the Takahashi et al. patent are not those of Formula (V) of Applicant's claim 12 and therefore the rejection is erroneous. Thus, the PTO is respectfully requested to reconsider and withdraw this rejection due to the deficiency in the Takahashi et al. disclosure, which deficiency is not cured by the disclosure in either the Hammerschmidt et al. or Hirano et al. patents

Additionally it is also to be noted that there is nothing in this cited prior art patents to indicate that any of those patentees had a recognition or appreciation of the problem of providing polybenzoxazole precursor photosensitive compositions capable of curing to high temperature resistant features, **which will not substantially darken during typical cure temperatures employed, or how to accomplish the solution to that problem, i.e., by the use of photoactive compounds of applicant's claims.**

It is reiterated that the Office Action recognizes and states that the Takahashi et al. and Hammerschmidt et al. patents **lack** a specific disclosure for the specific silane adhesion promoting agent disclosed in claims 32-33. In view of this deficiency in these

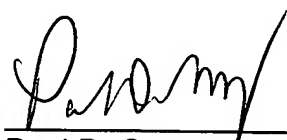
primary patent disclosures, the PTO relies upon the disclosure in Hirano et al. as disclosing organosilane compounds and contends that it would be obvious to one skilled in the art to add an organosilane agent as taught by Hirano et al. as an adhesion promoter and reasonably expect same or similar results as disclosed in Takahashi et al. and Hammerschmidt et al. Takahashi et al. and Hammerschmidt et al. do not disclose compositions with the non-polymeric photosensitive compounds required by section (b) of claim 12 as detailed hereinbefore. Thus, when an adhesion promoter of Hirano et al. is employed in the compositions of either Takahashi et al. or Hammerschmidt et al. (as suggested by the PTO in the Office Action) compositions of Applicant's claims do **NOT** result because of the hereinbefore pointed out deficiencies in those two primary references with respect to the photoactive compounds required by Applicant's claims. Since the disclosure in Hirano et al. cures none of the deficiencies of the Takahashi et al. or Hammerschmidt et al. patent disclosures, their combination with Hirano et al. does not and cannot render the claimed invention obvious to one skilled in the art under 35 U.S.C. 103.

Therefore, the PTO is respectfully requested to reconsider and withdraw the 35 U.S.C. 103 rejection of claims 12-20, 22, 23, 25, 26, 29-33, 38-40, 43, 44, 49-51, 54 and 55 over these references for the reasons stated herein before.

It is respectfully submitted that the foregoing is a full and complete response to the Office Action and that the claims are allowable. An early indication of their allowability by issuance of a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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Paul D. Greeley, Esq.
Registration No. 31,019
Attorney for Applicant(s)
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
One Landmark Square, 10th floor
Stamford, CT 06901-2682

Tel: (203) 327-4500
Fax: (203) 327-6401